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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,224	09/28/2001	Thomas Gilbert	D0932-00252	2826

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DUANE, MORRIS & HECKSCHER LLP  
One Liberty Place  
Philadelphia, PA 19103-7396

[REDACTED] EXAMINER

NGUYEN, THU KHANH T

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

1722

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/967,224	GILBERT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thu Khanh T. Nguyen	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 June 2003.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 16-19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 16-19 and 21-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosler (5,314,325) in view of Westcott et al (4,389,179) or over Westcott et al in view of Bosler.

Bosler discloses an apparatus for continuous vacuum forming a sheet, comprising an extruder (40), a flexible rotating belt (18) with a resilience portion (22), an idle roller (14), a drive roller (16), a vacuum means (26) and a water-cooling means (34) for cooling a patterned portion of the sheet.

Bosler, however, fails to disclose a second forming and a water-cooling means and a cutting means, and hole-punching means.

Westcott et al disclose a sheet forming apparatus, comprising a plurality of heating stations (3, 7, 11), a plurality of forming stations (5, 9, 13) for forming different sections across the sheet, and a plurality of selective cooling stations (6, 10, 14) for cooling each of those sections (col. 2, lines 56-64). In which the first (5) and third (13) forming stations reshape the right and left edges of the sheet, and each of those edge-forming station is engaged with water cooling means (6, 14; col. 6, lines 38-39). The apparatus further comprises an adjustable cutting means such as a rotary punch for cutting holes on the edge sections and for cutting the sheet into a desired length (col. 7, lines 27-39).

Westcott et al fail to disclose a flexible rotating belt with a resilient portion, an idle roller and a drive roller, and vacuum means.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Bosler by providing a second forming means and cooling means, a cutting means, and a hole-punching means as taught by Westcott et al, because the second forming and cooling means would produce different desired cross-sectional configurations or shape in the sheet, the cutting means would cut the product into a desired length, and the hole punching means would form nail holes on the edge of the sheet products for future use.

It would also have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Westcott et al by providing a rotatable conveyor with a resilient portion, an idle roller, a driver roller and vacuum means as taught by Bosler, because the rotatable conveyor would support the sheet to prevent it from sagging down on the floor during the transportation of the sheet from one station to the others, wherein the driver roller would drive the conveyor to rotate around the idle roller, and the vacuum means would draw the sheet to the surface of the conveyor belt to emboss the sheet surface.

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosler and Westcott et al as applied to claims 16-19 above, and further in view of Kemerer et al (4,128,369).

Bosler and Westcott disclose a thermoforming apparatus as described above, in which Bosler discloses that the cooling means includes a water spray means (34). But these references fail to disclose a hooded chamber at the cooling water.

Kemerer et al disclose a continuors apparatus for forming thermoplastic products, comprising a hooded chamber (46, 186) to prevent the water sprays (184) from contaminating other parts of the apparatus.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Bosler by providing a hooded chamber covering the water sprays as taught by Kemerer et al, because the hooded chamber would prevent the water sprays from contaiminating other parts of the apparatus.

4. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosler and Westcott et al as applied to claims 16-19 above, and further in view of Borst et al (4,475,881).

Bosler and Westcott fail to disclose that the sizers includes a series of adjustable lateral blocks or plates.

Borst et al disclose an an apparatus for thermoforming the edge portions of plastic sheet, comprising a plurality of upper and lower lateral blocks (18, 20, 32) being lever operated (Fig. 4); wherein the blocks are adjustable by cylinders (65, 123).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Bosler and Westcott by providing a series of adjustable blocks as taught by Borst et al, because the blocks would be adjustable depending on the sheet material to reform the edge portions.

#### *Response to Arguments*

5. Applicant's arguments filed June 13, 2003 have been fully considered but they are not persuasive. In response to applicant's arguments against the references individually, one cannot

show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Futher, in regarding to Westcott et al, the Applicant alleged that this reference has taught away from the combination of Bosler and Westcott reference at column 3, lines 18-29. The examiner respectfully disagree. Westcott et al recognize that the prior art needs an improvement, especially a need to improve the cooling of the sheet material. Therefore, Westcott et al have based on the prior art structure to make an improvement on the thermoforming apparatus. This reference does not teach away from the prior art, or the combination of Bosler and Westcott et al. Actually, Bosler provides the basic structures of a thermoforming apparatus, Westcott et al provide the improvement. Combining the two references would result in a complete and improved apparatus.

New rejections were made in view of Bosler and Westcott et al over Kemerer et al or Borst et al to cover the newly added claims 21-25.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 703-305-7167. The examiner can normally be reached on Monday- Friday, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

TN  
August 4, 2003

  
ROBERT DAVIS  
PRIMARY EXAMINER  
GROUP 1000 / 700  
